THE MONOGRAPH SERIES
RECORDS OF EARLY AMERICAN ARCHITECTURE
AS SOURCE MATERIAL

EDITED BY RUSSELL F. WHITEHEAD, A·I·A

VOLUME XIX

MONOGRAPH FIVE

Some New England Staircases—1670-1770

BY BENJAMIN GRAHAM

Research and Measured Drawings by Frank Chouteau Brown
Photographs by Arthur C. Haskell

When the first Colonial dwellings began to attain the dignity of a full second story, with rooms of useable height, the temporary ladder-like arrangement that had previously served to reach the upper floor changed to a more permanent and a more ornamental feature in the American home. Sometimes it ran directly between partitions of wide board sheathing or plaster or, starting with a quarter wind at the bottom, it went steeply upward to the low chambers overhead. Or it reversed this process, starting straight up from beside the Kitchen in the "linter" (or "lean-to"), attaining the floor above with a quarter turn to right or left, as the case might be.

When the location against the front of a large chimney serving two end rooms, and possibly also a third at the rear, became common, the latter stair plan was soon changed to a flight of three runs—as in the Waters House at Marblehead—with either landings or winders at the corner angles, depending upon the height to be gained and the width of the chimney itself. Usually the chimney was spacious enough to permit of the landing (as in the Salmon Falls staircase), thus making the stairs easier to take by means of the brief "breather" at the turn, breaking up the steepness of the runs, generally of three to five risers each. And this remained the favorite stair arrangement, until the chimneys were removed to the outer end walls or placed midway between a pair of end rooms, when the Hall might be run entirely through the house from front to back, with a long straight flight of stairs, sometimes with a turn at top or bottom.

The staircase of the old-time New England house is always one of its most attractive adjuncts. No matter how simple, its proportions are almost invariably good and it is generally regarded as a most attractive feature of the early Colonial structure. Even the crudest and most primitive examples are today accepted as interesting exhibits of the inherent feeling of their builders for the design appropriate to its environment and the method of construction that was most perfectly adapted to express the materials available.

In the earliest existing houses, where the stairs are still to be seen in something approaching their original condition, built perhaps during the last half of the Seventeenth Century, the staircases usually had no baluster of any kind. It was then customary to extend the simple boarded face of the partition under the stair run up to the height of a low rail or to the level of the second story floor above, thus stiffening the stair construction and simplifying the problem of protecting the stair edge.

When the boarding—usually at that time some variation of the feather-edge pattern—did not extend up to the second floor timbering, it sometimes stopped at a height of two feet to thirty inches above the step rise, and was capped with a narrow moulded crown strip, with a small bedmoulding upon the face, or upon both sides. Or it might merely extend from

the first floor to the stair stringer and a single piece of hand railing carried between simple rough posts at top and bottom, with the space below left open—as was probably the original condition of the Dr. Peaslee stairway in the brick Garrison House at Rock Village, Massachusetts, dating from 1675.

Of course, at that time, the entire stair construction was suspended from two "buttresses" or "raised stringers," one on each side of the steps, into which the risers and treads were housed. These supports were usually about 10 by 2 inches, and there were no intermediate "stringers" used between, as supports, as is the modern custom. Often this stairway was left in its open and unadorned simplicity, as in the example from the Dennison House (shown in the February Monograph, 1933) at Annisquam; where the work was carried out in pine, fashioned after the earlier oak staircases, of which there are several examples dating from about 1675. Again, with this form of design, and either one or two sloping rails pinned at each end into the upright posts at landing and floor levels, this treatment served as a sort of structural "truss," obviously stiffening the carriage of the stairs, and suspending each flight from end to end, even with a turn or landing in between.

Most early staircases were so cramped that they were perforce carried around angles in the plan with a series of steps, making what is known as a "wind," rather than the pleasanter and easier "landing"—as in the King Hooper, Waters, rear Warner Stairs, and other numerous examples. And the angles of these winding steps are very generally not at the usual 22½, 30 or 45 degree, so regularly employed in modern stairbuilding, but some slight variation of these angles, the stair winders being usually "worked" or "handled" around the post, in the manner that appears in the plan of the Dennison staircase, and others here indicated.

Another detail characteristic of the early staircases is the informal variance of the height of the rail above tread and gallery level, being often higher than is the modern custom and, occasionally, much lower, while in those instances (as in the Wentworth Mansion at Salmon Falls) where the rail on each run of the flight is a handworked ramp made in one piece of material, it shows considerable extremes of height, as appears in the varied lengths of the balusters.

The old rule-of-thumb proportioning of stair-rise to stair-tread dimension—"that twice the rise added to the width of tread should equal 25 inches" (or, at least, come within the extremes of 24 to 26 inches)—has been pretty consistently adhered to in all old work.

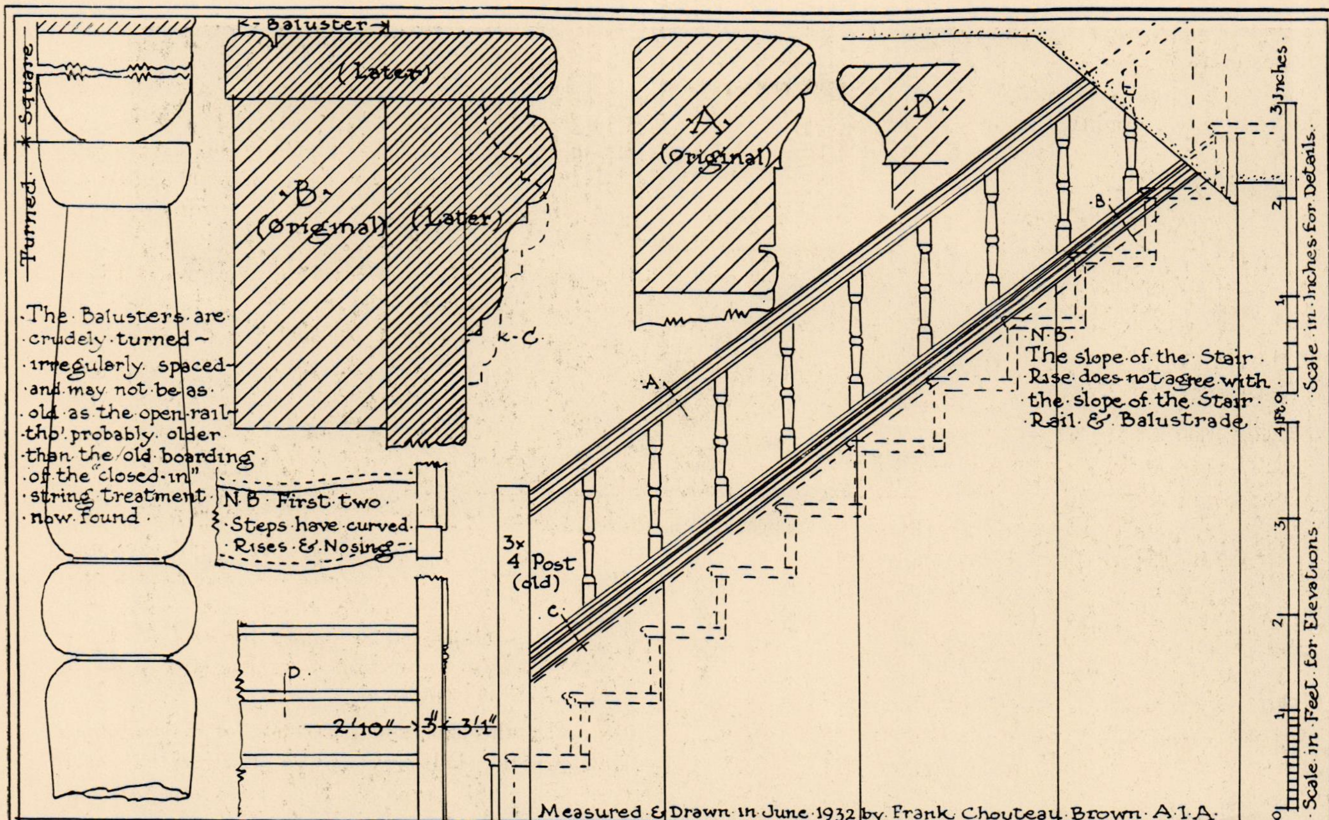
The turned baluster was probably introduced some time between 1675 and 1700. At first wide-spaced and roughly turned or "whittled" out of soft wood (as in the Peaslee stairs at Rock Village) it was often — as there — inserted under older existing rails. Its turnings gradually became more ornate and elaborate—as in the Salmon Falls Mansion House, where a baluster pattern very advanced and delicate for its period, with an informal irregularity of turning that naively bespeaks its probable original date—until we reach the perfections obtained in the fine mahogany and workmanship of the spacious front stairs of the famed Jeremiah Lee Mansion at Marblehead, with its majestic width of seven feet!

It seems impossible that this fine workmanship was achieved by the inventive artisan, from a simple turning lathe. Yet the elaborate and delicately moulded posts and balusters of the Lee Mansion must have been achieved in 1768 with a common lathe, foot or water-powered. With this simple implement, geared to a slow even turning, a skilled workman could mark out these twists and spirals with the edge of his chisel, grooving them as deeply as he dared: and then, with their regularity once established, he could complete the grooving by hand, and finish off the twist at top or bottom by carving—as was always necessary, even with the most improved machines for this work, of which the earliest known in New England was not developed before 1860 or 65.

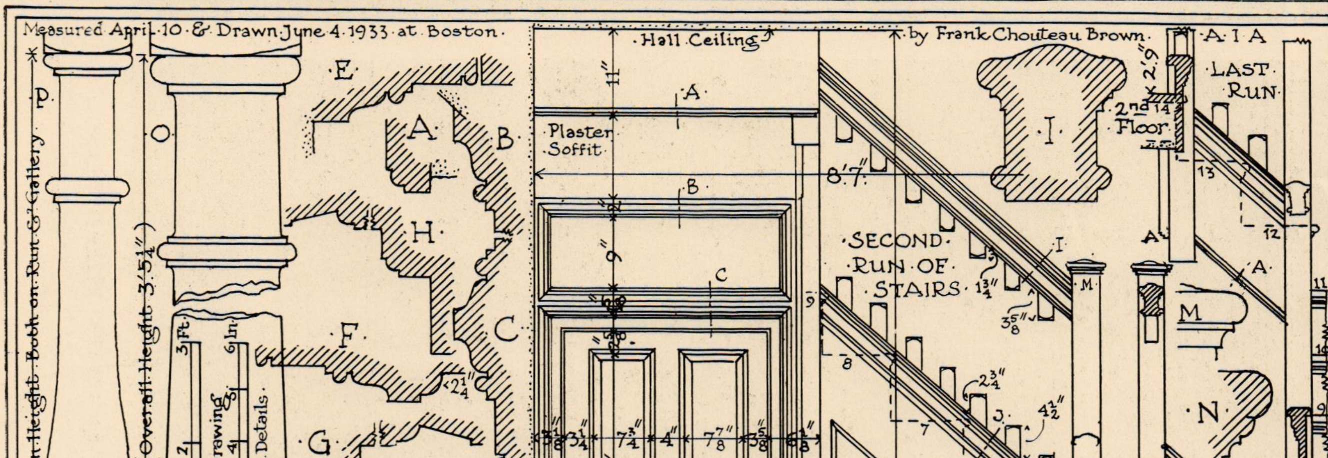
Or notice the skill and perfection of thoroughness with which the Dillaway House stairway has been worked out. This perfection may be contrasted with the Short House stairs, done in the advanced, comparatively rich and populous settlement of Newbury, and made for a far wealthier man than the simple parson who built the Dillaway House across the street from his Church on Eliot Square in Roxbury. For the Short House balusters, as magnified in their shadows on the wall, betray almost the extremes of variation, in their turnings and patterns, of any of the examples illustrated in this collection.

Some of these same variations are to be found in the earlier famed Warner House at Portsmouth, built between 1718 and 1722, at a cost of 10,000 pounds by one Capt. MacPhestris. But here probably other elements must be taken into account. Only the rear staircase now seems plausibly harmonious with its period. The front flight has been subjected to extensive alterations; probably the closed-in type of gallery treatment found on the landing and second floor expressing the older—and perhaps the original—design. The workmanship along the runs, and stair ends, dating from some later rebuilding or change—even though made soon after the dwelling was completed!

The Lee Mansion front stairs, with double twisted newel, three differently designed balusters on each tread, and its mahogany rail ramped at the stair well angles as well as at the landings, is among the most elaborate stair designs of the period. It also shows the characteristic wall dado, its cap following out the ramps and eases of the stair rail, but at a height some ten inches above the latter, that appears in all the best examples. Finally it also exhibits the boxed-in undercarriage, paneled upon the back face, that shows under the second run, extending from the landing to the second floor level.

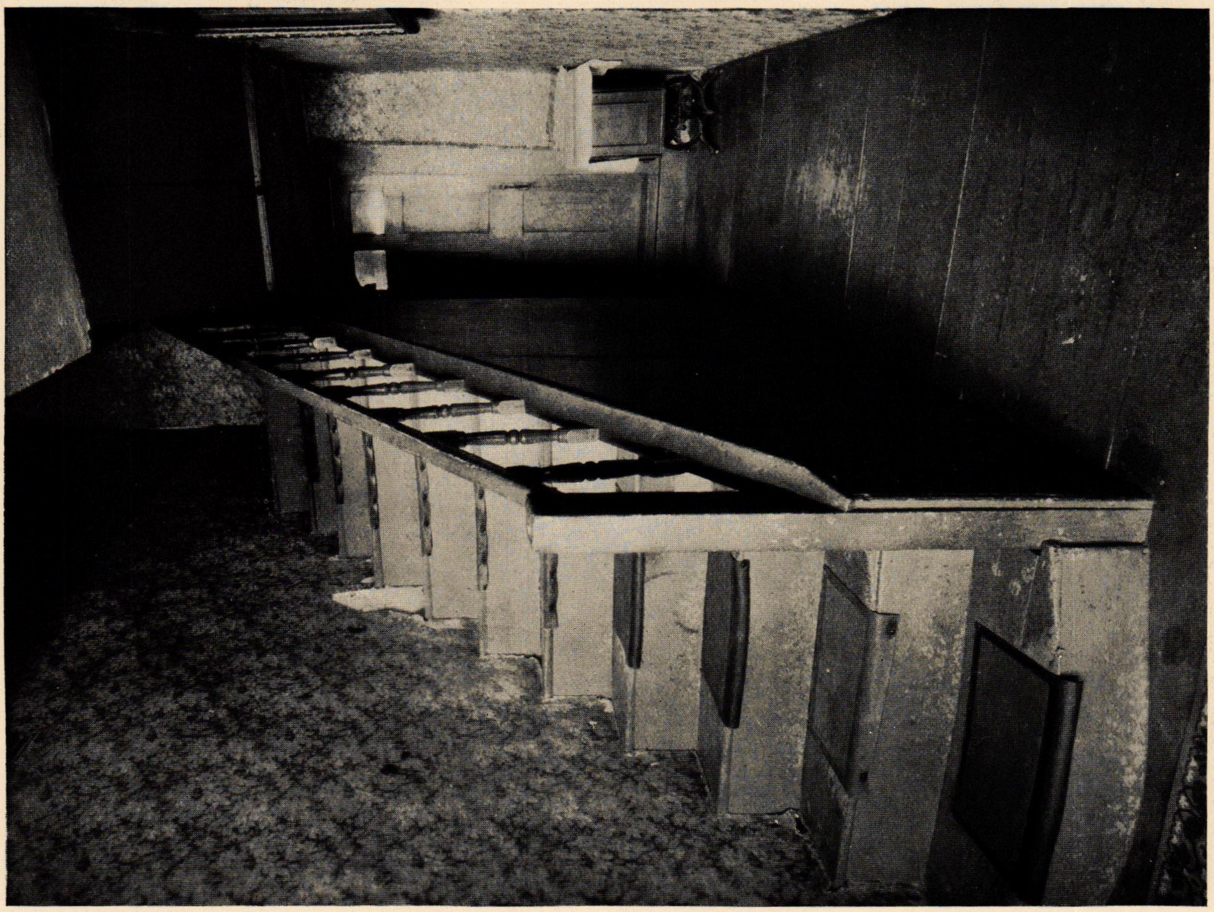


·OLD·STAIRCASE·GARRISON·HOUSE·ROCKS·VILLAGE·MASSACHUSETTS·
·BUILT·BY·DOCTOR·JOSEPH·PEASLEE·JUNIOR·IN·THE·YEAR·1675·



·STAIRCASE·OLD·WILLIAM·WATERS·HOUSE·1684·
·TOWN·SQUARE·MARBLEHEAD·MASSACHUSETTS·

[67]

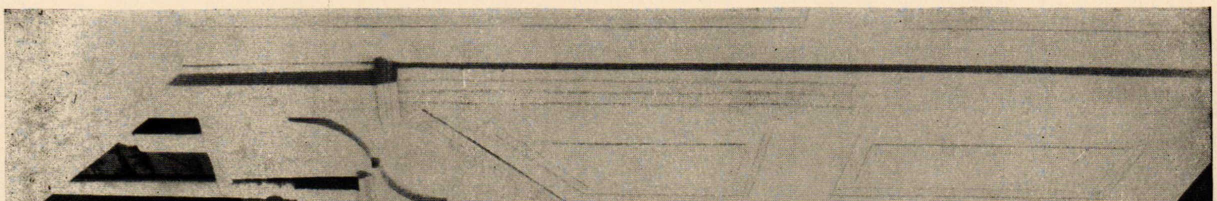


WILLIAM WATTERS STAIRCASE—1684—MARBLEHEAD, MASS.

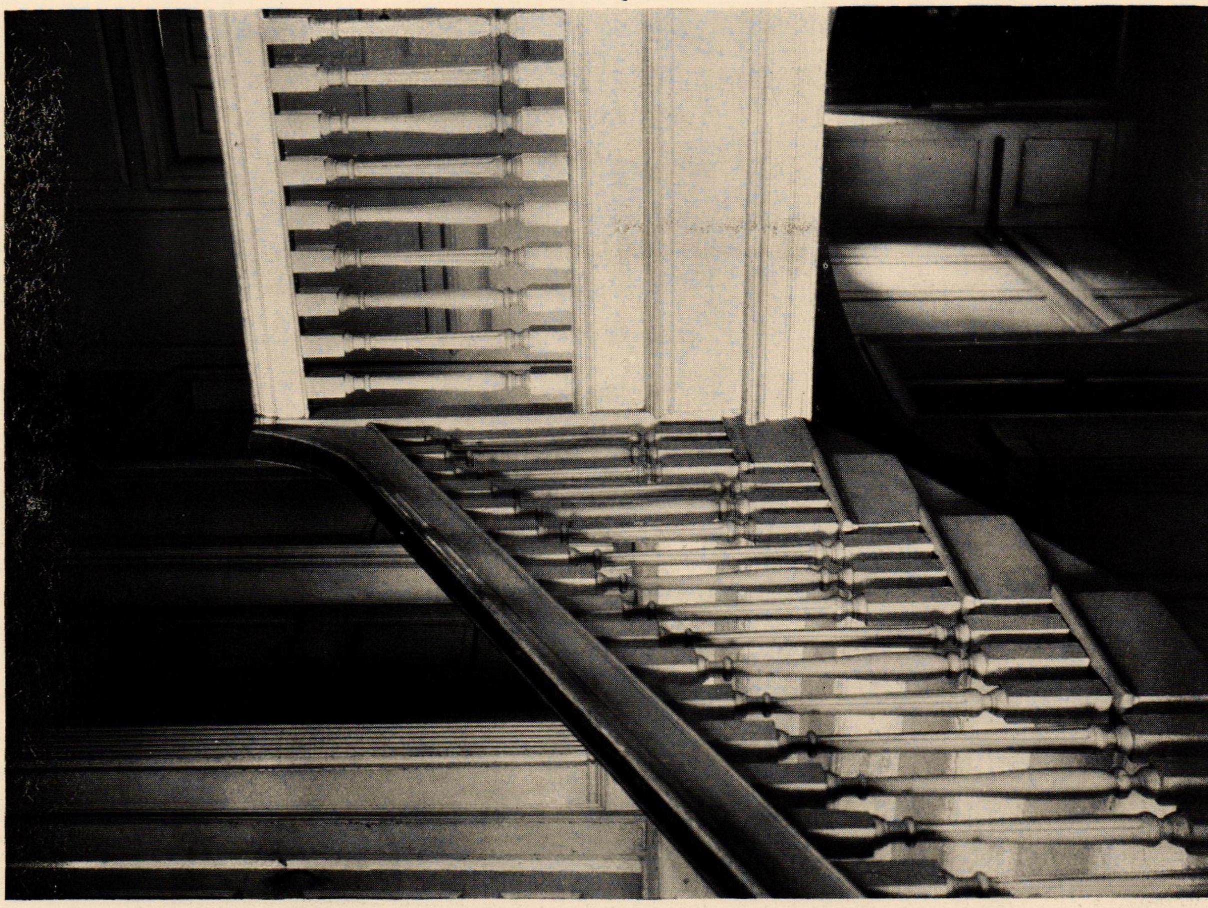
JOSEPH PEASLEE STAIRCASE—1675—ROCK VILLAGE, MASS.

(Measured Drawings Shown on Page 67)

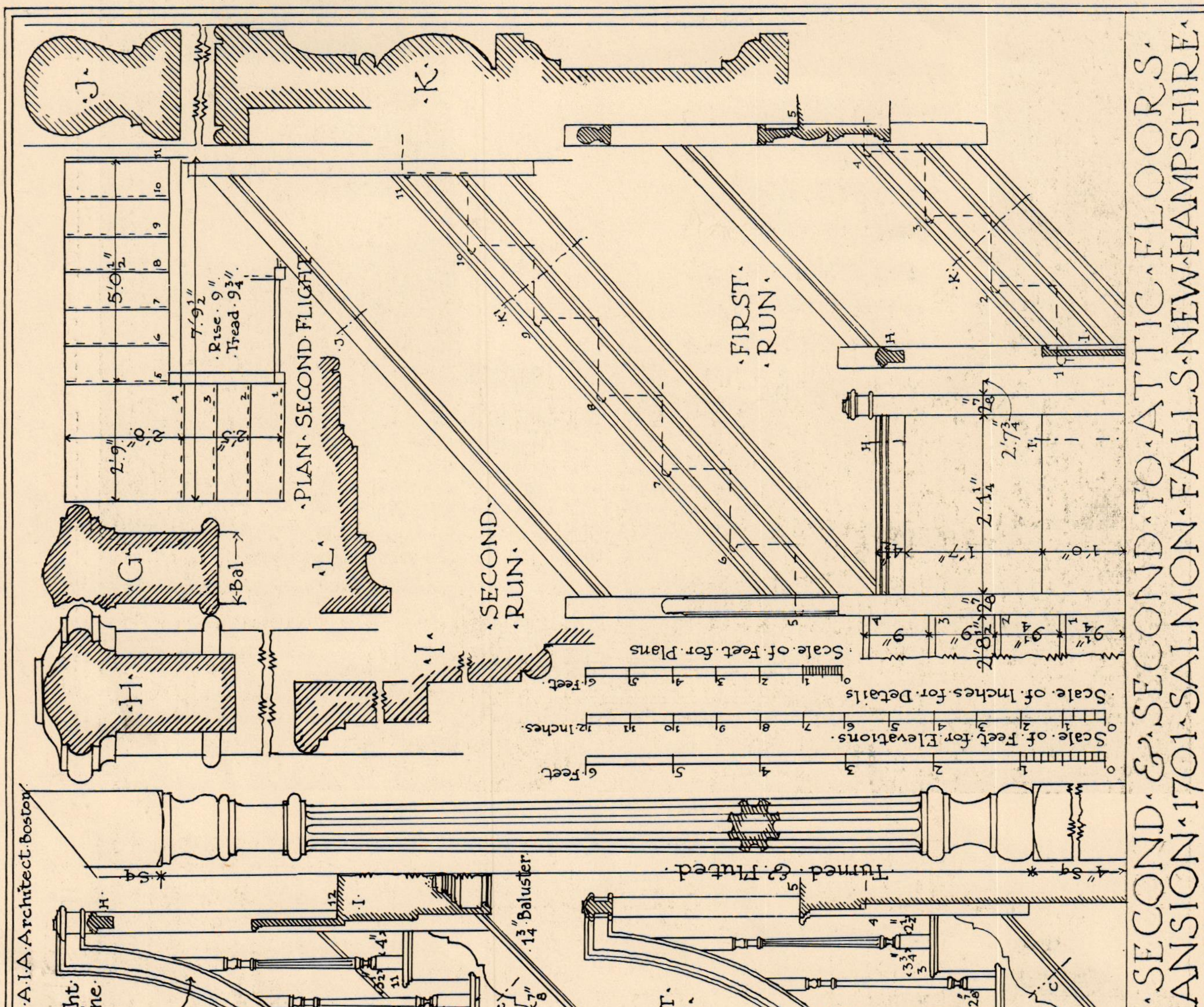
[68]



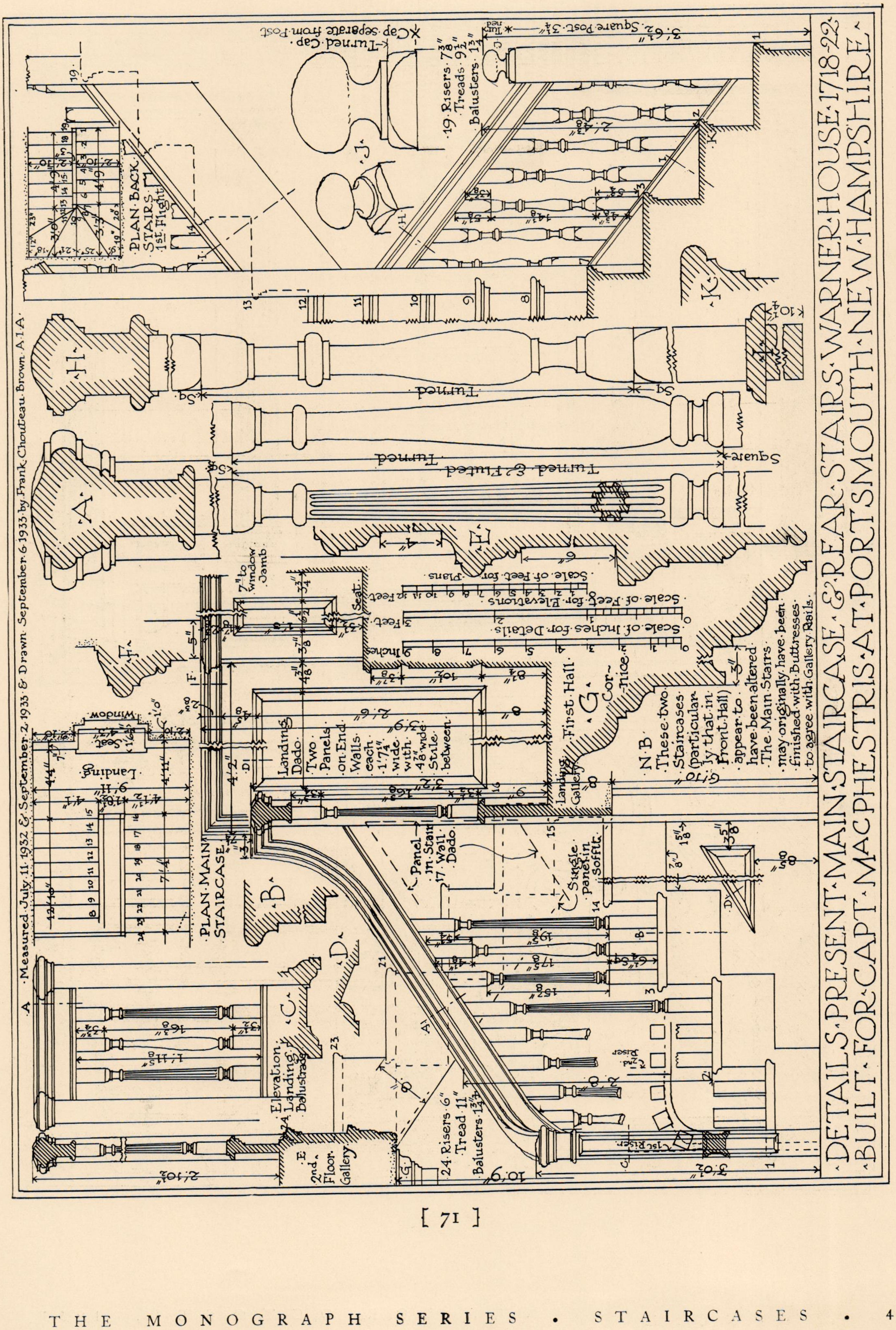
PAUL WENTWORTH STAIRCASE—1701—SALMON FALLS, N. H.
(Measured Drawing on Page 70)



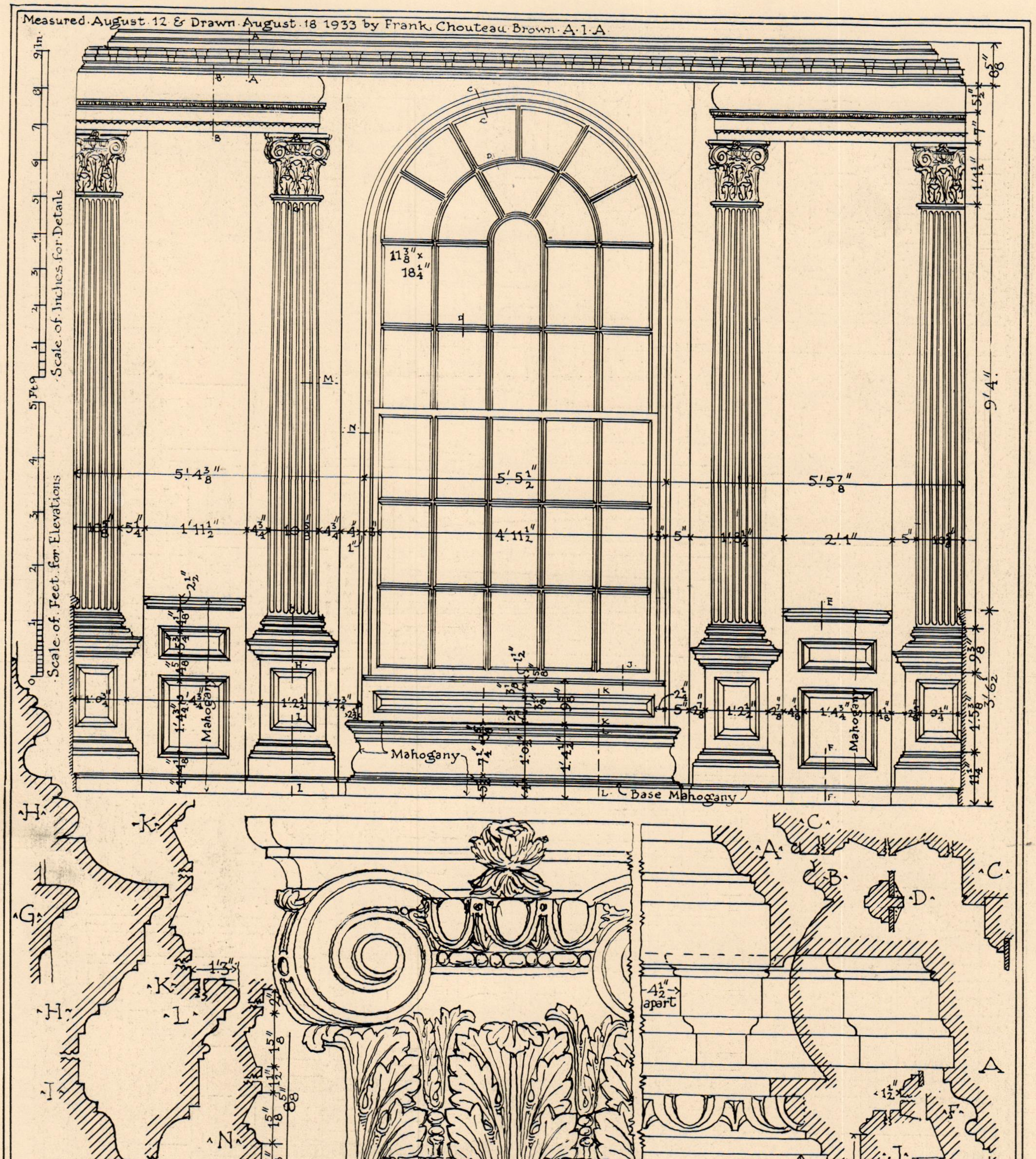
WARNER HOUSE STAIRCASE—1718-22—PORTSMOUTH, N. H.
(Measured Drawing on Page 71)


MAIN·STAIRCASE·FIRST·TO·SECOND·&·SECOND·TO·ATTIC·FLOORS·
·COL·PAUL·WENTWORTH·MANSION·1701·SALMON·FALLS·NEW·HAMPSHIRE·
Measured Sept. 10. 1932. Drawn August 8 1933 by Frank Chouteau Brown A.I.A. Architect Boston
N.B. First Flight Rail is Pine finished Natural
·PLAN·FIRST·FLIGHT·
·PLAN·SECOND·FLIGHT·
Rise 9" Tread 9¾"
·SECOND·RUN·
·THIRD·RUN·
·FIRST·RUN·
Paneled Soffit
13¼" Baluster
Turned & Fluted
Scale of Feet for Plans
Scale of Inches for Details
Scale of Feet for Elevations

[70]


DETAILS·PRESENT·MAIN·STAIRCASE·&·REAR·STAIRS·WARNER·HOUSE·1718-22
BUILT·FOR·CAPT·MACPHESTRIS·AT·PORTSMOUTH·NEW·HAMPSHIRE
Measured July 11. 1932 & September 2. 1933 & Drawn September 6. 1933 by Frank Chouteau Brown. A.I.A.
PLAN·MAIN STAIRCASE
PLAN·BACK STAIRS 1st Flight
Elevation Landing Balustrade
Landing Dado Two Panels on End Walls each 1'7¼" wide with 4 7/8" wide Stile between
N.B. These two Staircases (particularly that in Front Hall) appear to have been altered. The Main Stairs may originally have been finished with Buttresses to agree with Gallery Rails.
24 Risers 6" Tread 11" Balusters 13¼"
19 Risers 7 3/8" Treads 9½" Balusters 13¼"
Turned Cap
Cap separate from Post
Square Post 3¼"
Turned
Turned & Fluted
Square
Scale of Feet for Plans
Scale of Feet for Elevations
Scale of Inches for Details
First Hall Cornice
2nd Floor Gallery
Landing Gallery
Single panel in Soffit
Panel in Stair Wall Dado
1st Riser
2nd Riser
Landing
Window
Seat
7" to Window Jamb

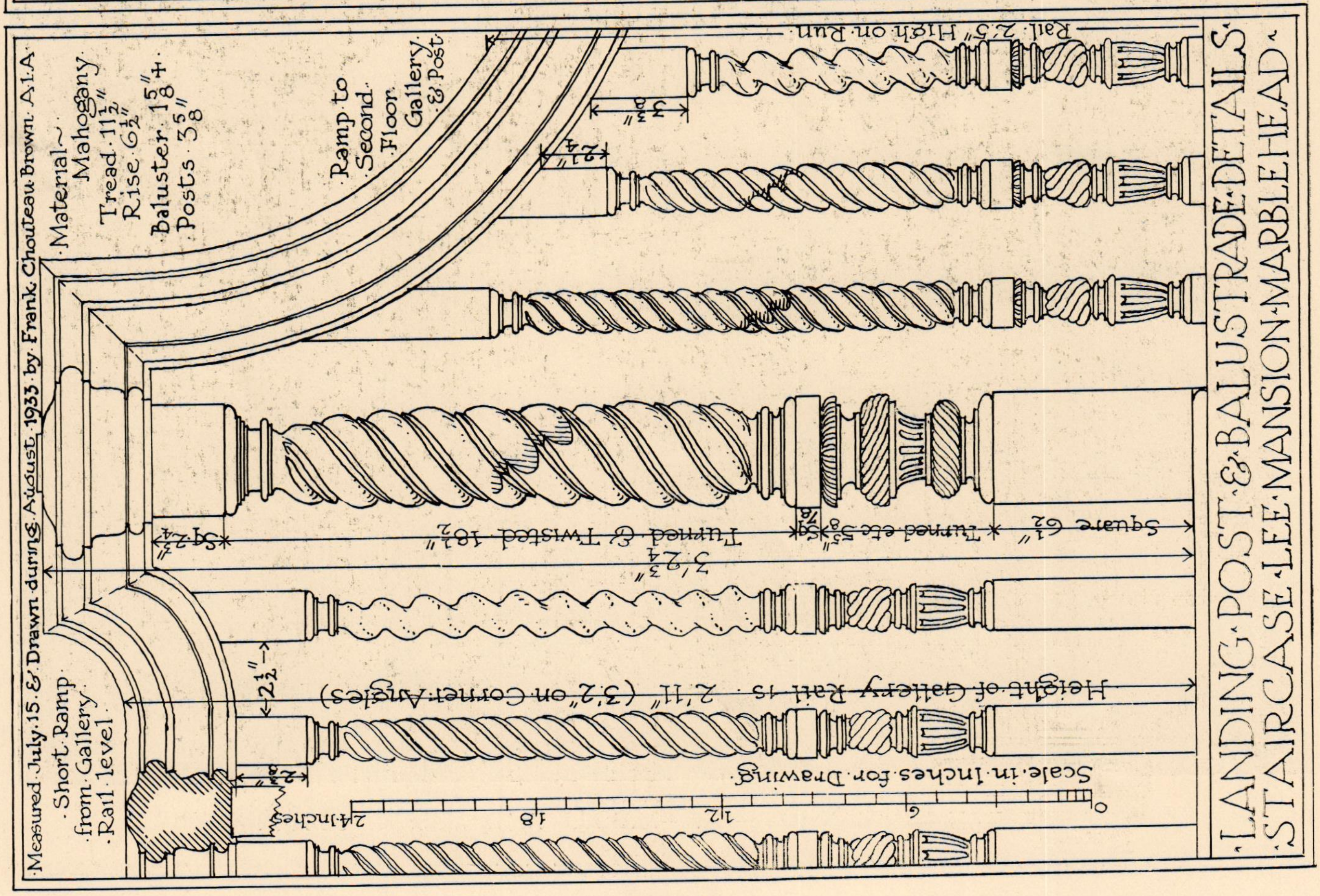
[71]



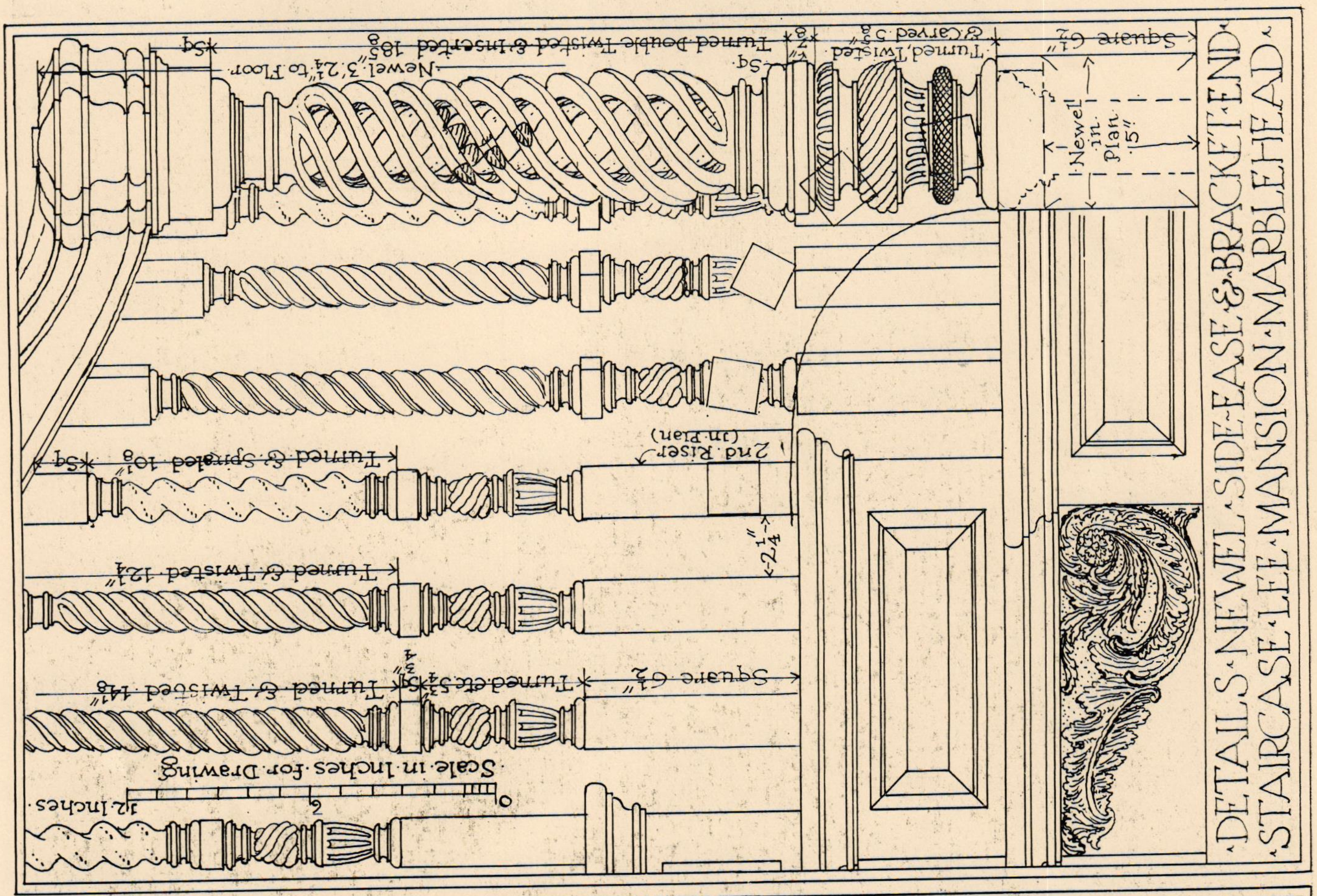
WEST WINDOW & WALL ON STAIRCASE LANDING
JEREMIAH LEE MANSION 1768 MARBLEHEAD MASS

[72]

JEREMIAH LEE MANSION—1768—MARBLEHEAD, MASSACHUSETTS
(Measured Drawings Shown on Pages 72, 74, and 75)

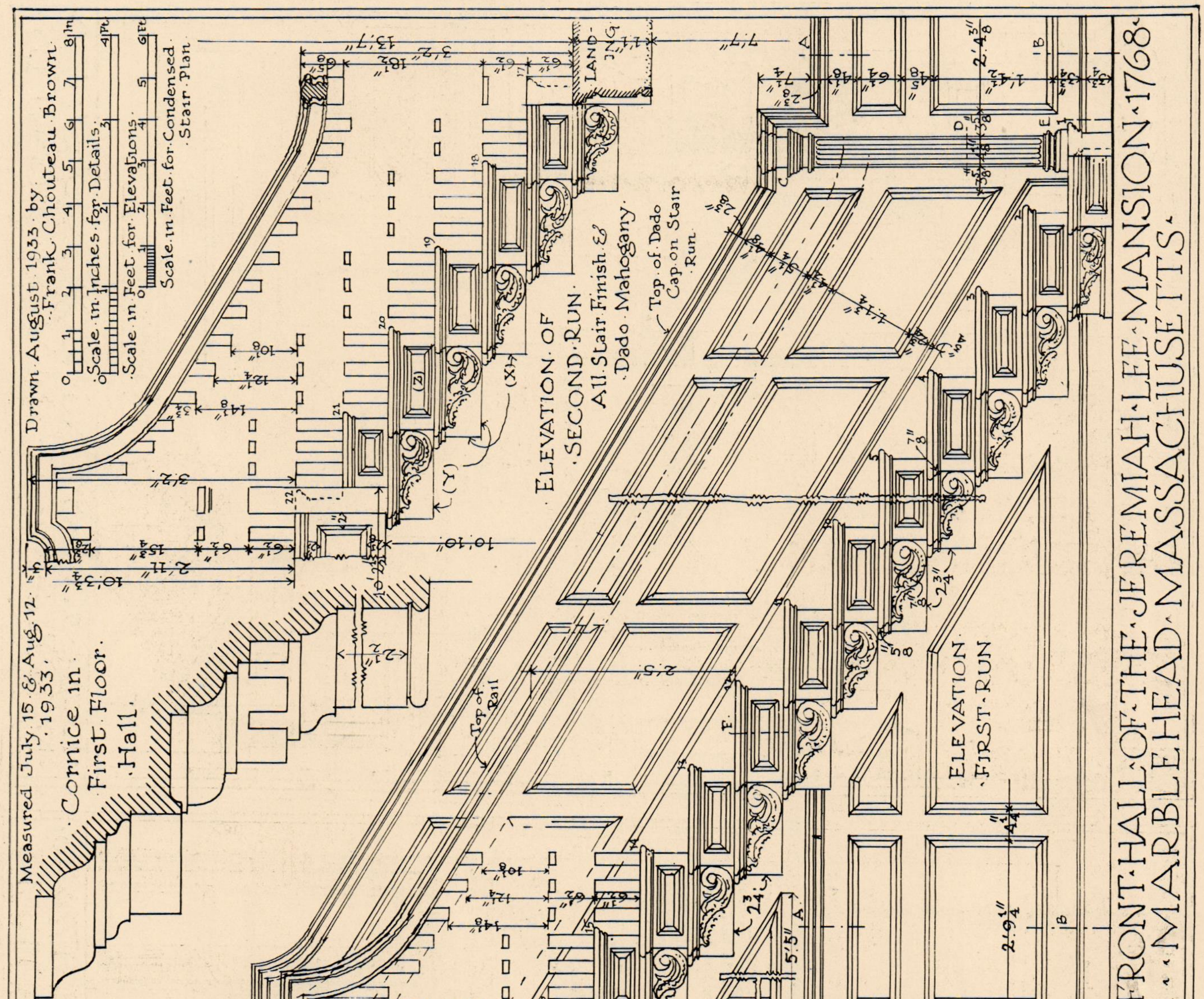


·LANDING·POST·&·BALUSTRADE·DETAILS·
·STAIRCASE·LEE·MANSION·MARBLEHEAD·
·Measured July. 15. & Drawn during August. 1933 by Frank Chouteau Brown. A.I.A.
·Short Ramp from Gallery Rail level
Material~ Mahogany Tread 11½" Rise 6½" Baluster 18¾" Posts 3⅝"
Ramp to Second Floor Gallery & Post
Rail 2'5" High on Run
Height of Gallery Rail is 2'11" (3'2" on Corner Angles)
Scale in Inches for Drawing
24 Inches
Square 6½"
Turned etc 5¾"
Turned & Twisted 18½"
3'2¾"

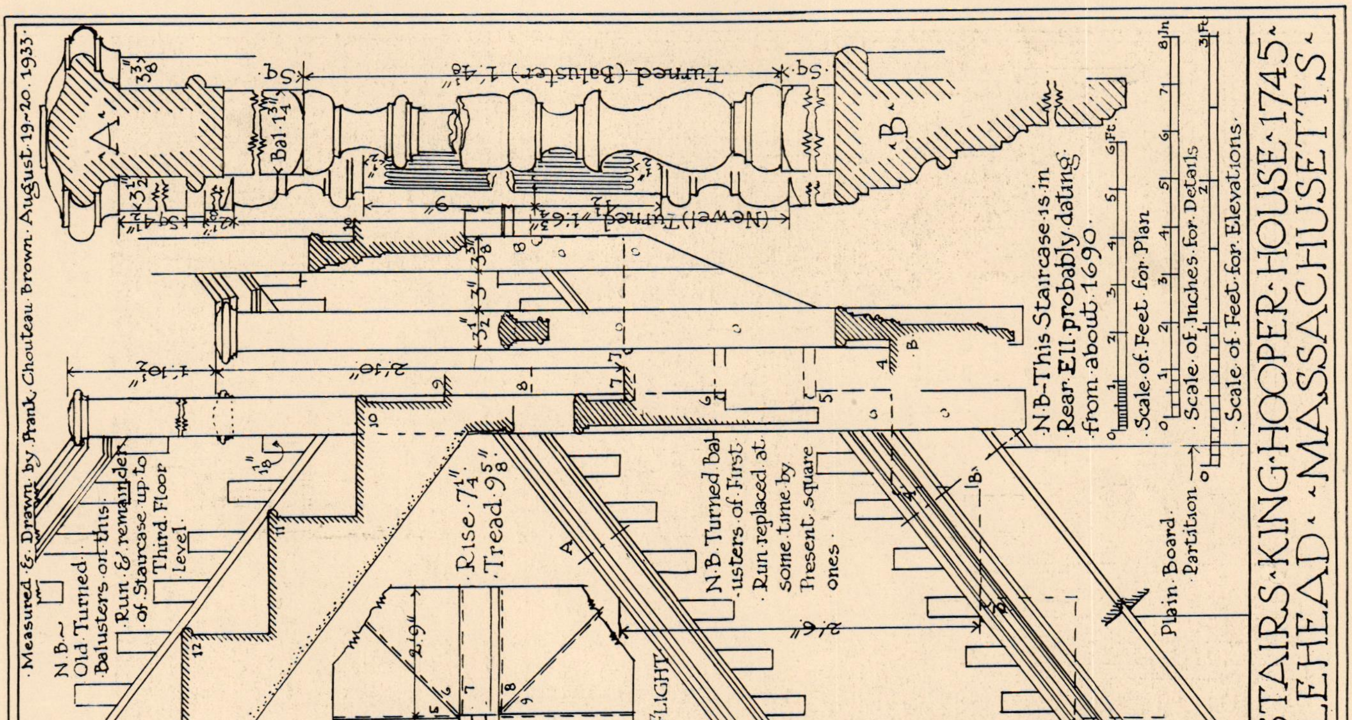


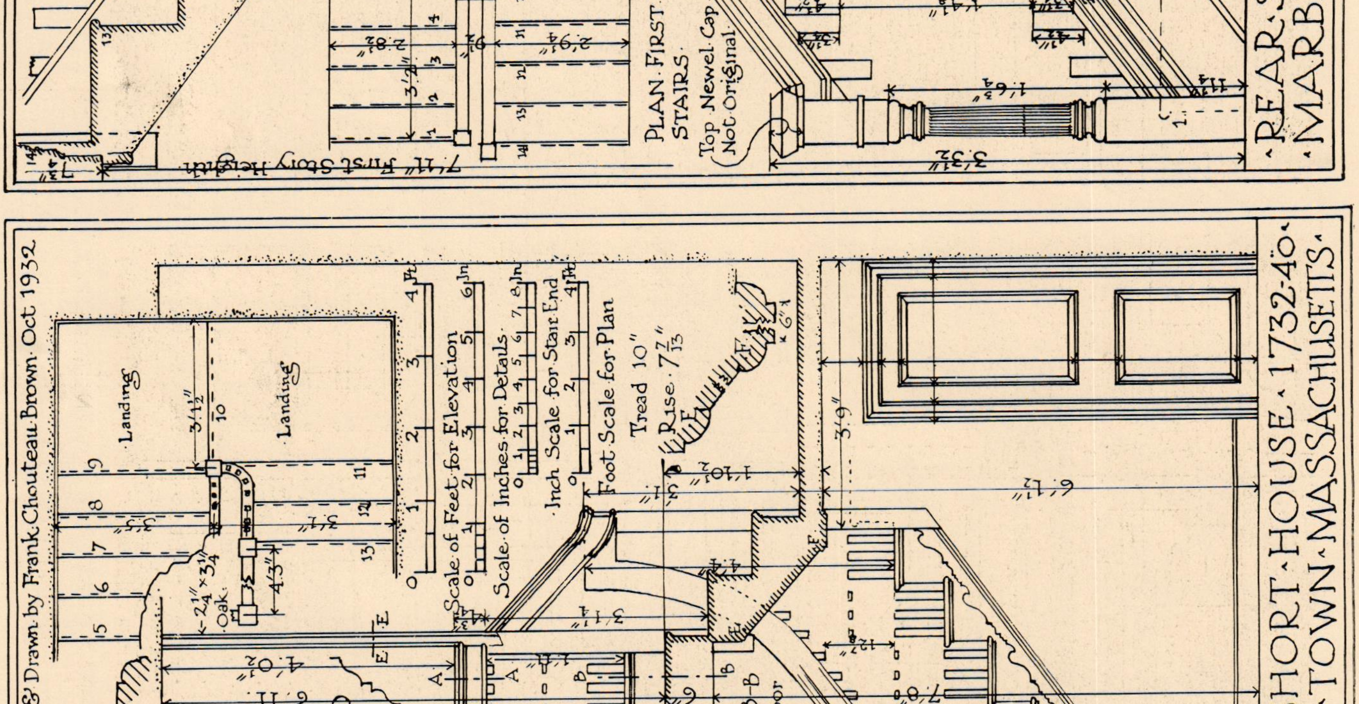
·DETAILS·NEWEL·SIDE·EASE·&·BRACKET·END·
·STAIRCASE·LEE·MANSION·MARBLEHEAD·
Newel 3'2¼" to Floor
Turned Double Twisted & Inserted 18⅝
Turned, Twisted & Carved 5⅜
Square 6½"
Newel in Plan 5"
Turned & Spiraled 10⅛
2nd Riser (in Plan)
Turned & Twisted 12¼
Turned & Twisted 14⅛
Turned etc 5¼
Square 6½"
Scale in Inches for Drawing
12 Inches

[74]

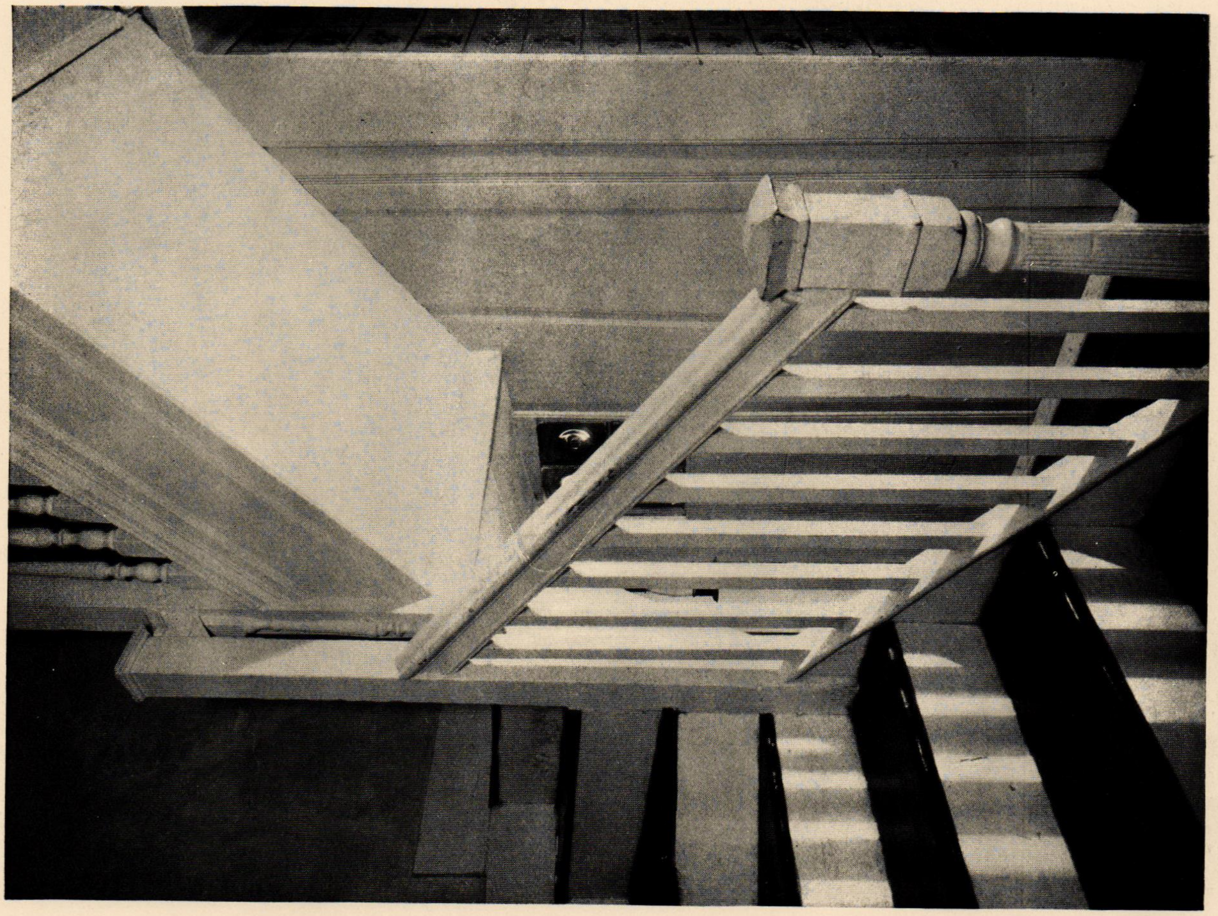

MAIN · STAIRCASE · & · DADO · FRONT · HALL · OF · THE · JEREMIAH · LEE · MANSION · 1768
BANK · SQUARE · MARBLEHEAD · MASSACHUSETTS
Measured July 15 & Aug 12 1933
Drawn August 1933 by Frank Chouteau Brown
Scale in Inches for Details
Scale in Feet for Elevations
Scale in Feet for Condensed Stair Plan
Cornice in First Floor Hall
ELEVATION OF SECOND RUN
All Stair Finish & Dado Mahogany
Top of Dado Cap on Stair Run
Top of Rail
ELEVATION FIRST RUN
CONDENSED PLAN
Landing
Stair Well
Hall 16'0" wide
LANDING
Tread 11½" Rise 6½"
Plain Soffit under 2nd Run of Staircase (Y) Paneled Back (X) & Step End (Z). Two Panels in length of Back. 2⅜" Style between.

[75]

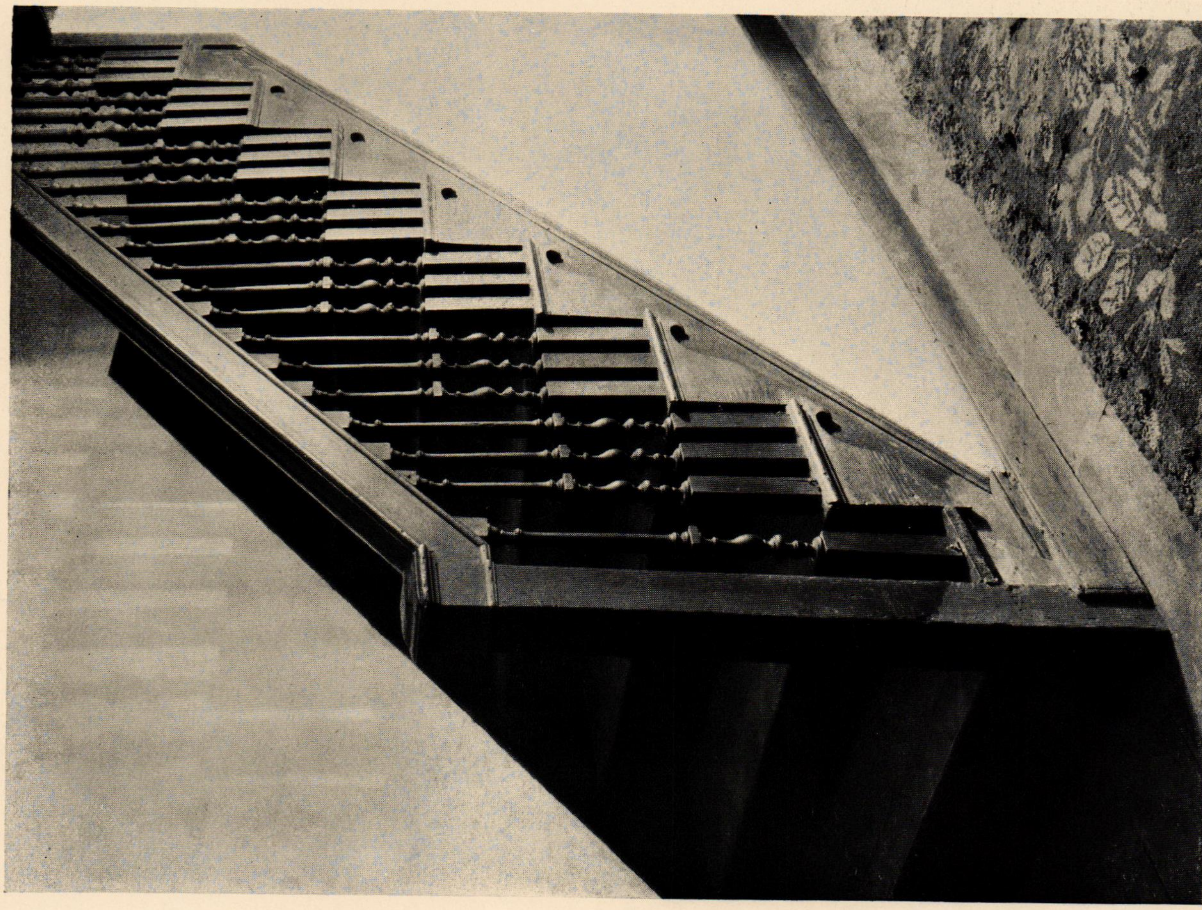

·REAR·STAIRS·KING·HOOPER·HOUSE·1745·
·MARBLEHEAD· ·MASSACHUSETTS·
Measured & Drawn by Frank Chouteau Brown August 19-20 1933
N.B.- Old Turned Balusters on this Run & remainder of Staircase up to Third Floor level.
PLAN FIRST FLIGHT STAIRS
Rise 7¼" Tread 9⅝"
Top Newel Cap Not Original
N.B. Turned Balusters of First Run replaced at some time by present square ones
N.B.-This Staircase is in Rear Ell probably dating from about 1690
Plain Board Partition
Scale of Feet for Plan
Scale of Inches for Details
Scale of Feet for Elevations
7'11" First Story Height
Turned (Baluster)
(Newel) Turned


·STAIRCASE·IN·SHORT·HOUSE·1732-40·
·NEWBURY·OLD·TOWN·MASSACHUSETTS·
Measured & Drawn by Frank Chouteau Brown Oct 1932
Section thro Hand Rail A-A
Stair End ⅛ Full Size
Section B-B 2nd Floor Gallery
Section C-C Stair End
Landing
Landing
Scale of Feet for Elevation
Scale of Inches for Details
Inch Scale for Start End
Foot Scale for Plan
Tread 10" Rise 7 7/13"
Turned

[76]



KING HOOPER REAR STAIRS—1745—MARBLEHEAD, MASS.
(Measured Drawing on Page 76)



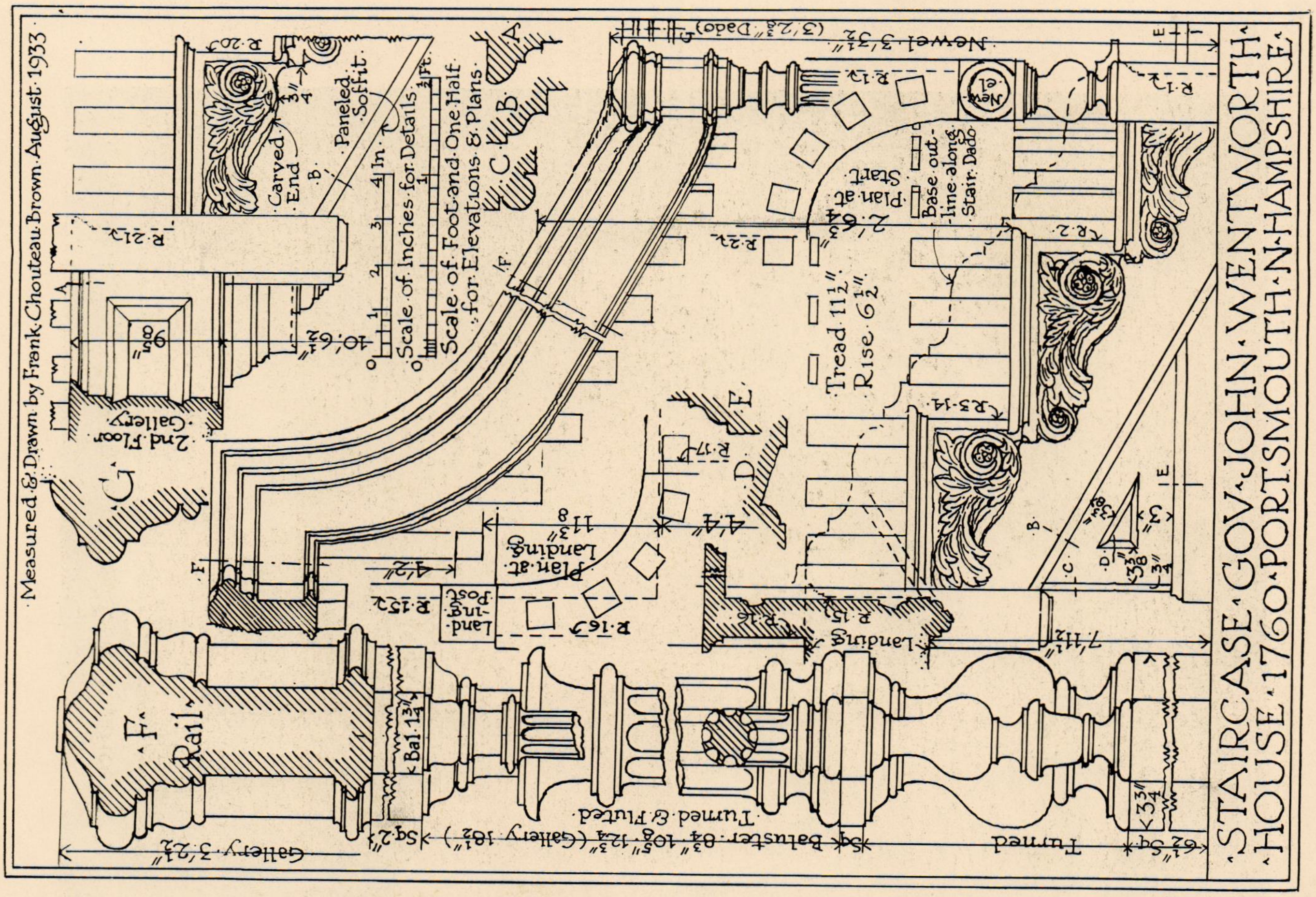
SHORT STAIRCASE—1732-40—NEWBURY OLD TOWN, MASS.
(Measured Drawing on Page 76)

[77]

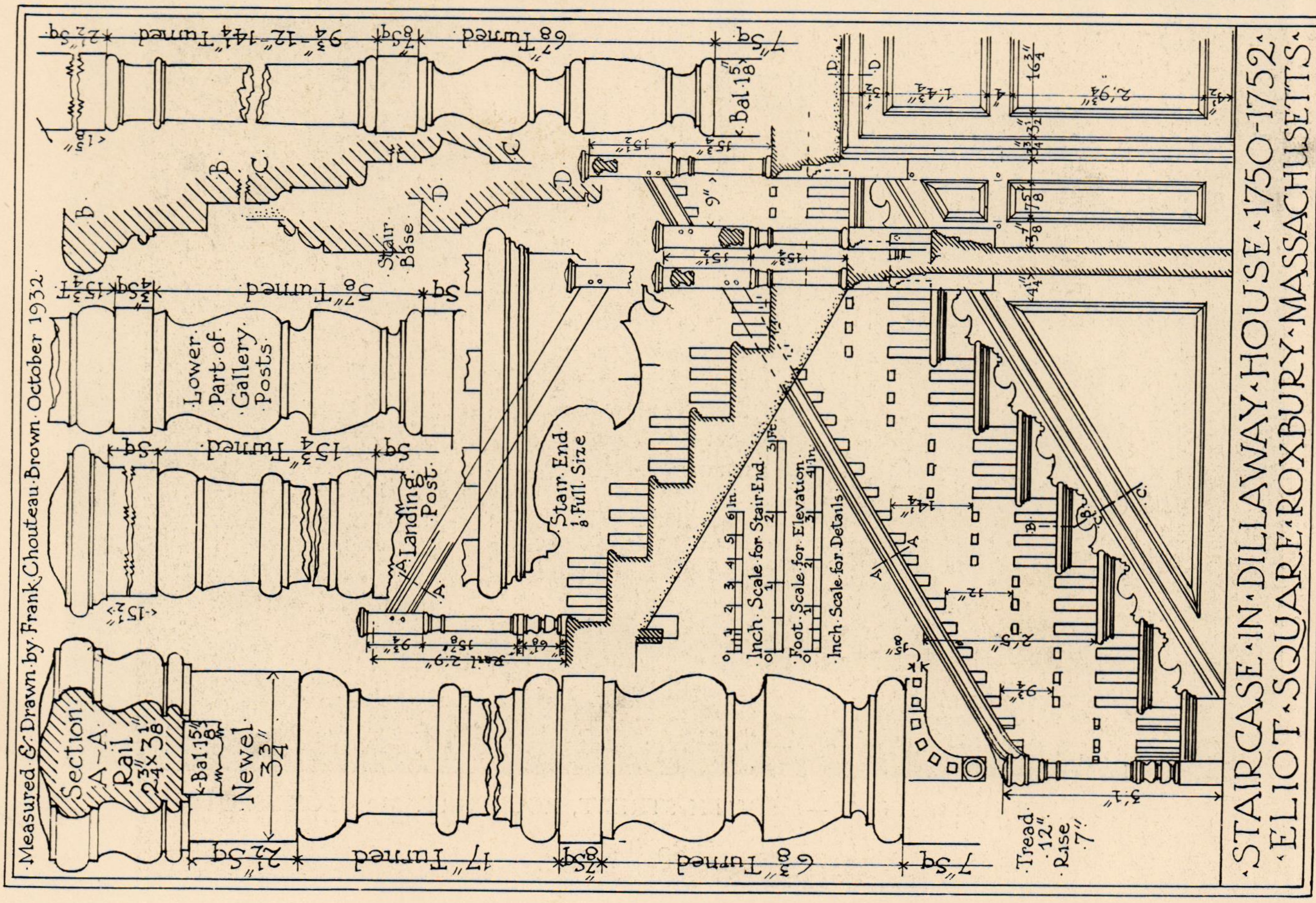
DILLAWAY STAIRCASE—1750-52—ROXBURY, MASS.
(Measured Drawing on Page 79)

GOV. JOHN WENTWORTH STAIRCASE—1760—PORTSMOUTH, N. H.
(Measured Drawing on Page 79)

[78]

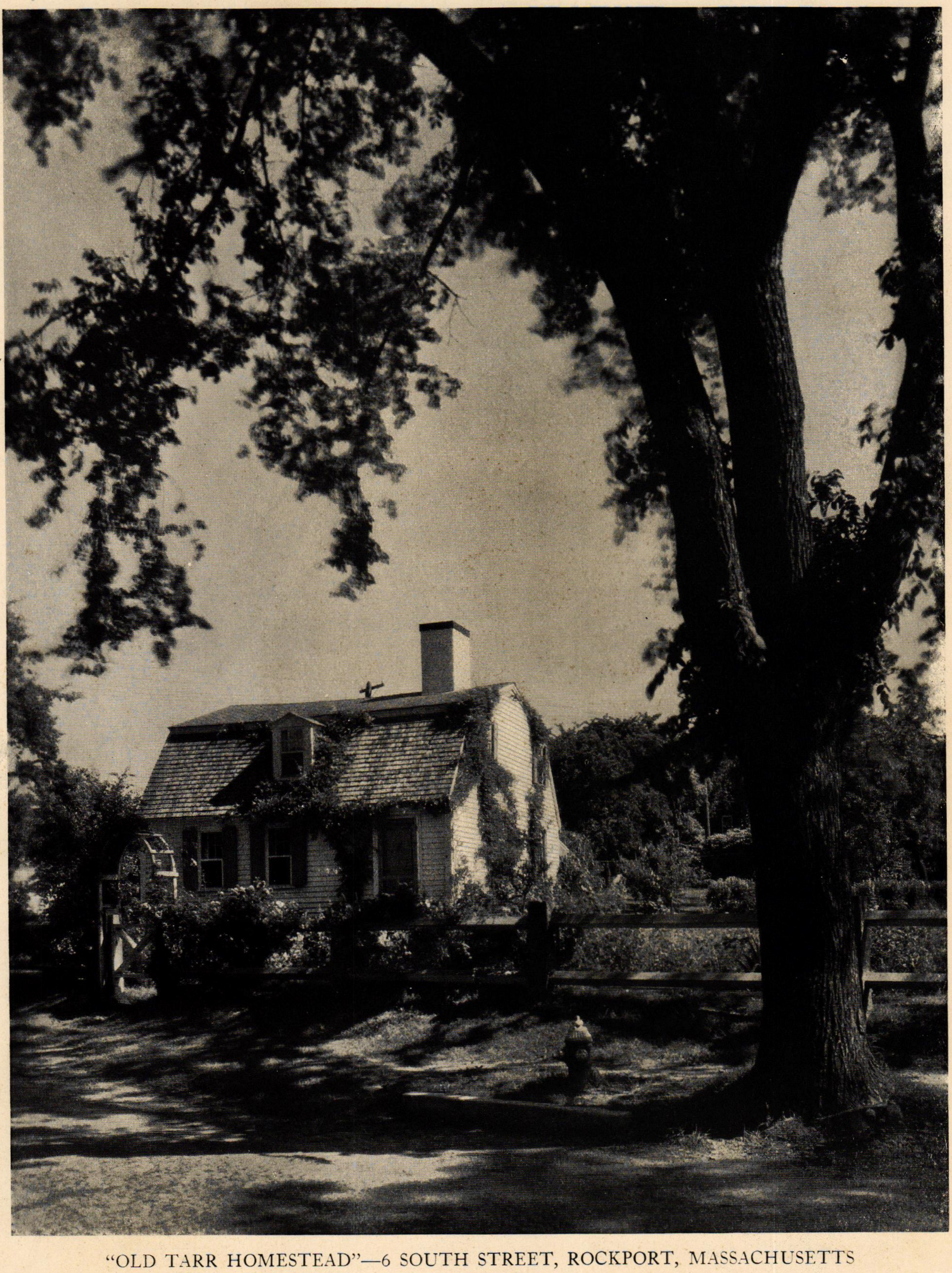


·STAIRCASE·GOV·JOHN·WENTWORTH·HOUSE·1760·PORTSMOUTH·N·HAMPSHIRE·
Measured & Drawn by Frank Chouteau Brown August 1933
Scale of Foot and One Half for Elevations & Plans
Scale of Inches for Details
Plan at Start
Plan at Landing
Tread 11½" Rise 6½"
Turned & Fluted
Rail
2nd Floor Gallery
Carved End
Paneled Soffit



·STAIRCASE·IN·DILLAWAY·HOUSE·1750-1752·ELIOT·SQUARE·ROXBURY·MASSACHUSETTS·
Measured & Drawn by Frank Chouteau Brown October 1932
Section A-A Rail
Newel 33"
Landing Post
Lower Part of Gallery Posts
Stair End ⅛ Full Size
Stair Base
Inch Scale for Stair End
Foot Scale for Elevation
Inch Scale for Details
Tread 12" Rise 7"

[79]



"OLD TARR HOMESTEAD"—6 SOUTH STREET, ROCKPORT, MASSACHUSETTS

[80]